

as occurring at Bogota, the only district in which the species has hitherto been found. The colour is bright rusty-red; the elytra are brassy-greenish-black, the outer margins and a narrower edge at the base bordering the scutellum with two short imperfect fasciæ and a triangular marginal spot rusty-red; the first fascia commences at the margin, behind the shoulders, curves downwards, and terminates about halfway to the suture; the second arises about the middle of the lateral margin and extends straight across without reaching the suture; the spot is on the margin, halfway between the second fascia and the apex, and marks the place where the third fascia originates in the typical examples. The rest is in accordance with the description of Gerstaecker.

XIV.—*Characters of undescribed Species of the Family Chalcidæ.*

By F. WALKER, F.L.S.

THE following communication is the sequel of my remarks on the characters and distribution of the Chalcidites, which I commenced in the first Number of this Journal, by some notes on the Leucospidæ.

This part will contain descriptions of Chalcidæ, and observations on that family, which is usually placed next to the Leucospidæ; but there is no connecting link between the two groups, and, as it will afterwards appear, the Leucospidæ are associated with the rest of the Chalcidites by means of the Torymidæ.

The undescribed Chalcidæ are numerous, and in the following pages the characters of new species will precede the sketch of the geographical distribution of the family.

In these descriptions some of the generic names are retained, others are set aside. As in other cases, the characters of recently-discovered species of this family obliterate most of the distinctions between many of the established genera, and then ensues the alternative of making many new genera or of uniting the old genera; and this fact is an illustration of the rule, that an increase of knowledge modifies or changes, or does away with, all previous knowledge.

SMIERA LUTEIPENNIS. *Fem.* Lutea, glabra, nitens; caput et thorax subpunctata; vertex niger; antennæ ferruginæ, graciles, filiformes; scutum disco piceo; scutellum inerme; petiolus brevis; abdomen fusi-forme, acuminatum, ferrugineo fasciatum; pedes anteriores nigro vittati; coxæ extus piceo subtus nigro vittatæ; femora postica subdentata, striga basali lata nigra; alæ limpidae, apice cinereæ.

Mas? Antennæ nigrae; thorax luteus, striga lanceolata nigra; petiolus longissimus, supra niger; abdomen ellipticum, nigro vittatum; pedes lutei, coxis tibiisque posticis nigro vittatis; alæ amplæ.

Female. Luteous, smooth, shining. Head and thorax very minutely punctured. Head pale yellow, vertex and grooves for the antennæ black. Antennæ ferruginous, slender, filiform; scape pale yellowish beneath towards the base. Prothorax yellow. Mesothorax with the disk of the scutum piceous; scutellum unarmed. Abdomen fusiform, acuminate, slightly compressed, with ferruginous bands, much longer and narrower than the thorax; petiole short. Anterior femora and tibiæ with black stripes; hind coxæ very long, with a piceous stripe on the outer side and with a black stripe beneath; hind femora much incrassated, minutely dentate, with a broad black basal streak. Wings limpid, cinereous towards the tips; veins luteous, black towards the tips; ulna a little less than half the length of the humerus, shorter than the radius; cubitus short. Length of the body 5 lines; of the wings 8 lines.

Villa Nova. Discovered by Mr. Bates. In the British Museum.

Male? Flagellum of the antennæ black. Thorax wholly luteous, except a black streak, which is broad on the hinder half of the scutum and slender on the scutellum. Petiole very long, black above. Abdomen elliptical, hardly longer than the petiole, with a broad black stripe which does not extend to the base. Legs wholly luteous, except a black stripe on each of the hind coxæ, and another on each of the hind tibiæ. Wings darker towards the tips and more ample than those of the female.

St. Paulo. Discovered by Mr. Bates. In the British Museum.

SMIERA DUX. *Fam.* Lutea, glabra, nitens; caput et thorax punctata; antennæ piceæ, filiformes, apice rufescentes; scutum nigro quadristriatum; scutellum bidentatum, nigro fasciatum; metathorax basi nigro fasciatus; petiolus brevissimus; abdomen lanceolatum, fasciis duabus piceis unaque nigra; coxæ posticæ extus nigro strigatæ; femora postica dentata; alæ cinereæ, anticæ apud costam lutescentes.

Female. Luteous, smooth, shining. Head and thorax punctured. Head with a short black band behind. Antennæ piceous, filiform, reddish at the tips; scape luteous beneath. Scutum with four black streaks which converge to the black suture between it and the scutellum, the latter with a black band near the bidentate hind border; metathorax with a short black band at the base. Abdomen lanceolate, narrower and very much longer than the thorax, with a black band near the base, and with two piceous bands in the middle; petiole very short. Hind coxæ with a black streak on the outer side; hind femora incrassated, armed with several rather large black-tipped teeth; basal tooth very large and acute. Wings cinereous; veins piceous. Fore wings with a luteous tinge along the costa; ulna about half the length

of the humerus; radius not longer than the ulna; cubitus short. Length of the body 6 lines; of the wings 7 lines.

Para. Discovered by Mr. Bates. In the British Museum.

SMIERA LANCEOLATA. *Fam.* Lutea; caput et thorax subpunctata, illum antice flavum; antennæ piceæ, filiformes, apice luteæ, scapo fulvo; scutum nigro quadrimaculatum; scutellum bidentatum, nigro bifasciatum; metathorax nigro unifasciatus; abdomen lanceolatum, fasciatum; coxæ posticæ vittatæ; femora postica dentata; alæ longæ, cineræ.

Female. Luteous. Head and thorax minutely punctured. Head yellow in front. Antennæ piceous, filiform, luteous at the tips; scape tawny; scutum with a black spot on each side of the fore border, and with a black exterior spot on each side hindward; scutellum with a black band at the base extending to the paraptera, and with a black band near the hind border, which is armed with two short teeth; metathorax with a short black band. Abdomen lanceolate, slightly compressed, a little narrower and much longer than the thorax, extending a little beyond the fore wings; a darker band on each segment. Hind coxæ long, with a darker stripe on the outer side; hind femora incrassated, with several large teeth beneath, the basal tooth very large. Wings long, cinereous; veins tawny; ulna full half the length of the humerus; radius a little shorter than the ulna; cubitus short. Length of the body $4\frac{1}{2}$ lines; of the wings 8 lines.

Santarem. Discovered by Mr. Bates. In the British Museum.

SMIERA COSTALIS. *Fam.* Lutea, glabra, nitens; caput et thorax punctata; antennæ nigrae, filiformes, subtus apiceque rufescentes, scapo luteo; scutum nigro trivittatum; paraptera nigro guttata; scutellum inerme, nigro-vittatum; petiolus longus, nigro bilineatus; abdomen ferrugineum, fusiforme; coxæ posticæ extus nigro lineatæ; femora postica dentata; alæ cineræ, amplæ, anticæ apud costam fusciscentes.

Female. Luteous, smooth, shining. Head and thorax punctured. Antennæ black, filiform, reddish beneath and at the tips; scape luteous. Scutum with three black stripes; one discal, triangular, attenuated hindward, and one on each of the parapsides; a black dot on each of the paraptera; scutellum unarmed, with a black stripe, which is dilated hindward. Petiole long, shorter than the hind coxæ, with a black line on each side. Abdomen fusiform, ferruginous, except at the base and beneath, narrower than the thorax, more than twice the length of the petiole. Hind coxæ with a black line on the outer side; hind femora incrassated, with large black-tipped teeth. Wings cinereous, ample; veins piceous. Fore wings with a brownish tinge along the costa; ulna about half the length of the humerus; radius as long as the ulna; cubitus short. Length of the body $4\frac{1}{2}$ lines; of the wings 8 lines.

Para. Discovered by Mr. Bates. In the British Museum.

SMIERA DEMONSTRATA. *Fæm.* Lutea, glabra, nitens; caput et thorax subpunctata; antennæ nigrae, graciles, filiformes, scapo luteo; thorax disco nigro; scutellum inerme, nigro maculatum; petiolus brevis; abdomen lanceolatum, supra ferrugineum; coxæ posticæ nigrae; femora dentata, basi apiceque nigra; tibiæ posticæ apice nigrae; alæ cinereæ.

Female. Luteous, smooth, shining. Head and thorax very finely punctured. Head black behind. Antennæ black, slender, filiform; scape luteous. Paraptera, disk of the scutum, and disks of the parapsides black; scutellum unarmed, with a round black spot. Petiole short. Abdomen lanceolate, ferruginous above except towards the tip, much longer and narrower than the thorax. Hind coxæ long, black; hind femora much incrassated, black at the base and at the tips, armed beneath with very large teeth; hind tibiæ with black tips. Wings cinereous; veins black; ulna full half the length of the humerus; radius a little shorter than the ulna; cubitus short. Length of the body 4 lines; of the wings 6 lines.

Villa Nova. Discovered by Mr. Bates. In the British Museum.

SMIERA IMITATOR. *Fæm.* Lutea, glabra, nitens; caput et thorax subpunctata; scutum nigro strigatum; scutellum inerme, macula discali elongata nigra; pectus nigro biguttatum; petiolus brevissimus; abdomen lanceolatum, ferrugineo fasciatum; coxæ posticæ apice nigrae; femora postica subdentata, nigro biguttata; alæ cinereæ, breviusculæ.

Female. Luteous, smooth, shining. Head and thorax minutely punctured. Antennæ mutilated. Scutum with a black longitudinal line and with a short black streak on the suture of each of the parapsides; scutellum unarmed, with an elongated black spot on the disk; a black dot on each side of the pectus. Abdomen lanceolate, extending beyond the fore wings, narrower and a little longer than the thorax, with ferruginous bands, two of these mostly blackish; petiole very short. Hind coxæ with black tips; hind femora much incrassated, minutely dentate, with a black dot on each outer disk and a black apical dot. Wings cinereous, rather short; veins piceous; ulna about half the length of the humerus; radius as long as the ulna; cubitus very short. Length of the body $3\frac{1}{2}$ lines; of the wings 5 lines.

Santarem. Discovered by Mr. Bates. In the British Museum.

SMIERA OBLITERANS. *Mas.* Lutea, glabra, nitens; antennæ nigrae, filiformes, subtus rufescentes, scapo subtus flavo; parapsides nigro unipunctatæ; scutellum bidentatum, nigro lineatum; petiolus flavus, sat longus; abdomen fusiforme; coxæ posticæ apice nigrae; femora postica dentata; alæ cinereæ, apice obscuriores.

Fæm. Scutum nigro bilineatum; scutellum nigro vittatum; petiolus brevissimus; abdomen lanceolatum, strigis transversis lateralibus nigris.

Male. Luteous, smooth, shining. Head yellow in front, with a black line behind. Antennæ black, filiform, reddish beneath; scape yellow beneath. Parapsides with a black point on each; scutellum

bidentate, with a short black longitudinal line. Petiole yellow, less than half the length of the hind coxæ. Abdomen fusiform, much shorter and narrower than the thorax. Hind coxæ with black tips; hind femora incrassated, with large black teeth. Wings cinereous, darker towards the tips; veins black; ulna about half the length of the humerus; radius as long as the ulna; cubitus short. Length of the body $3\frac{1}{2}$ lines; of the wings 6 lines.

Female. Scutum with two black lines which are united hindward; scutellum with a lanceolate black stripe. Petiole very short. Abdomen lanceolate, much longer than the thorax; segments with black transverse streaks on each side. Length of the body $4\frac{1}{2}$ lines; of the wings 7 lines.

Santarem. Discovered by Mr. Bates. In the British Museum.

SMIERA CONGRUA. *Fæm.* Lutea, glabra, nitens; caput et thorax scitissime punctata; antennæ nigræ, longæ, graciles, filiformes, scapo luteo; thorax punctis duobus lateralibus nigris, scutello bidentato; abdomen lanceolatum, ferrugineo fasciatum, petiolo breviusculo; femora postica subdentata; alæ limpidæ, sat parvæ, venis luteis.

Female. Luteous, smooth, shining. Head and thorax very finely punctured. Head oblique in front, face very concave. Antennæ black, long, slender, filiform, much longer than the thorax; scape luteous. Thorax with a black point at the base of each fore wing; scutellum with two very minute teeth. Abdomen lanceolate, slightly compressed, much narrower but hardly longer than the thorax, with a ferruginous band on the fore borders of each segment; dorsal ridge slightly undulating; petiole less than half the length of the hind coxæ. Hind femora incrassated, very minutely dentate. Wings limpid, rather small; veins luteous; ulna a little less than half the length of the humerus; radius a little longer than the ulna; cubitus short, with a black stigma. Length of the body $3\frac{1}{2}$ lines; of the wings 5 lines.

Santarem. Discovered by Mr. Bates. In the British Museum.

SMIERA DECISA. *Mas.* Lutea, glabra, nitens; caput et thorax scitissime punctata; antennæ rufescentes, filiformes, apices versus nigræ; scutum nigro trivittatum; scutellum bidentatum, nigro vittatum; petiolus flavus, longiusculus; abdomen ovatum, gibbum, nigricante quadriguttatum; coxæ posticæ apice nigræ; femora postica dentata, nigro extus trimaculata; alæ cinereæ.

Male. Luteous, smooth, shining. Head and thorax very finely punctured. Head black behind. Antennæ reddish, filiform, black towards the tips. Scutum with a black discal stripe, which is dilated in front, and with a black oblique stripe on each side; scutellum bidentate, with a black stripe which is dilated hindward. Petiole yellow, slender, full half the length of the hind coxæ. Abdomen oval, gibbous, much shorter and very much narrower than the thorax, with two blackish dots on each side. Hind coxæ with black tips; hind

femora much incrassated, with large teeth, with two black spots on the outer side, the second apical. Wings cinereous; veins black; ulna a little more than half the length of the humerus; radius a little shorter than the ulna; cubitus very short. Length of the body $2\frac{1}{2}$ lines; of the wings $4\frac{1}{2}$ lines.

St. Paulo. Discovered by Mr. Bates. In the British Museum.

SMIERA SORDIDA. *Fem.* Lutea, glabra, nitens; caput et thorax subpunctata; antennæ nigrae, filiformes, breviusculæ, scapo luteo; scutum nigro quadririgatum et postice marginatum; scutellum inerme, macula nigra elongata trigona; petiolus brevis; abdomen fusiforme, acuminatum, basi fascisque pallidioribus; coxæ posticæ apice nigro strigatæ; femora postica subdentata, intus nigro bimaculata, apice piceo maculata; alæ cinereæ, amplæ, apud costam lutescentes.

Female. Luteous, smooth, shining. Head and thorax minutely punctured, the former with a black transverse line behind. Antennæ black, filiform, rather short; scape luteous. Scutum with two black streaks, which are connected hindward and join in a slender line the black hind border; a black streak on each of the parapsides; scutellum unarmed, with an elongated triangular black spot. Abdomen fusiform, acuminate, slightly compressed, paler at the base and on the hind border of each segment, much narrower but hardly longer than the thorax; petiole short. Hind coxæ very long, with a black streak above towards the tips; hind femora very minutely dentate, with two black spots on the inner side and with a piceous apical spot. Wings cinereous, ample, with a luteous tinge along the costa except towards the tips; veins black; ulna about half the length of the humerus; radius nearly as long as the ulna; cubitus very short. Length of the body 4 lines; of the wings 8 lines.

Villa Nova. Discovered by Mr. Bates. In the British Museum.

SMIERA ABDOMINALIS. *Mas.* Lutea, glabra, nitens; caput et thorax subpunctata; antennæ nigrae, breves, robustæ, filiformes, apice scapoque luteis; scutum et parapsides discis nigris; scutellum inerme, nigro marginatum; metathorax niger, scaber; petiolus longus, niger; abdomen ovatum, gibbum, supra piceum flavo fasciatum; coxæ posticæ supra nigrae; femora postica subdentata, macula discali apicibusque nigris; alæ fuscæ, apice cinereæ.

Male. Luteous, smooth, shining. Head and thorax minutely punctured. Head black behind. Antennæ black, short, stout, filiform; tips and scape luteous. Prothorax black along the fore border; disks of the scutum and of the parapsides black; scutellum unarmed, black along the fore and hind border; paraptera and metathorax black, the latter scabrous. Petiole, long, black. Abdomen oval, gibbous, very much shorter and narrower than the thorax, piceous above, with a yellow middle band. Hind coxæ black above; hind femora much incrassated, minutely dentate, with a black spot on each disk and with

black tips. Wings brownish, cinereous towards the tips; veins black; ulna thick, hardly half the length of the humerus; radius a little longer than the ulna; cubitus very short. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

Orizaba, Mexico. Discovered by M. Sallé. In the British Museum.

SMIERA DISCALIS. *Mas.* Fulva, glabra, nitens; caput et thorax subpunctata; caput vertice nigro, facie flavescente; antennæ piceæ, filiformes, scapo fulvo; thorax pubescens, nigro trimaculatus, scutello inermi; abdomen longi-ellipticum, petiolo brevi; coxæ posticæ apice nigræ; femora postica dentata; alæ cinereæ, anticæ apud costam luridæ.

Male. Tawny, smooth, shining. Head and thorax minutely punctured. Head with the vertex mostly black; face pale yellowish. Antennæ filiformi, piceous; scape tawny. Thorax pubescent, with a large discal black spot, and a small elongated black spot on each side of the scutum; scutellum unarmed. Abdomen with darker bands, elongate elliptical, slightly compressed; much narrower, but hardly shorter than the thorax; petiole hardly one-fourth of the length of the abdomen. Hind coxæ very long, with black tips; hind femora incrassated, armed with several large teeth. Wings cinereous; veins piceous. Fore wings with a lurid tinge along the costa; ulna about half the length of the humerus; radius almost as long as the ulna; cubitus rather long for this family. Length of the body $3\frac{1}{2}$ lines; of the wings 6 lines.

Ega. Discovered by Mr. Bates. In the British Museum.

SMIERA DIVISA. *Mas et Fem.* Nigra, glabra, nitens; caput et thorax scite punctata; caput antice flavo bimaculatum; antennæ maris filiformes, fœm. subclavatæ; thorax flavo bifasciatus, scutello inermi, metathorace scabro; abdomen compressum, breve, gibbosum, petiolo flavo, fœm. longo, maris longissimo; femora postica dentata; tibiæ posticæ flavo unimaculatæ; alæ cinereæ, anticæ apud costam luridæ.

Male and Female. Black, smooth, shining. Head and thorax minutely punctured. Head with a yellow spot on each side of the front; this spot much larger in the male than in the female. Antennæ filiform, and longer than the thorax in the male, subclavate, and a little shorter in the female. Thorax with a yellow curved band in front; scutellum unarmed, with a yellow hind border; metathorax roughly scabrous. Abdomen compressed, short, gibbous; petiole yellow, long, slender, nearly as long as the hind coxæ in the male. Hind coxæ very long; hind femora much incrassated, armed beneath with one large and several small teeth; hind tibiæ with a yellow spot. Wings cinereous; veins black. Fore wings with a lurid tinge along the costæ; ulna more than half the length of the humerus; radius shorter than the ulna; cubitus very short. *Male.* Tarsi reddish; anterior tibiæ yellow beneath; hind femora with two yellow stripes on the outer side. *Female.* Hind

femora with one yellow stripe on the outer side. Length of the body 3-3½ lines; of the wings 6 lines.

Orizaba, Mexico. Discovered by M. Sallé. In the British Museum.

SMIERA MESOMELAS. *Fem.* Fulva, glabra, nitens; caput et thorax subpunctata; antennæ piceæ, filiformes, longiusculæ, sat graciles, apice nigrae, scapo fulvo; thorax pubescens, scutello inermi, metathorace scabro; abdomen nigrum, lanceolatum, apice fulvum, petiolo breviusculo; femora posteriora basi nigra, postica subdentata; tibiæ posticæ apice nigrae; tarsi postici basi nigri; alæ cinereæ, anticæ apud costam fulvescentes.

Female. Tawny, smooth, shining. Head and thorax very minutely punctured. Antennæ piceous, filiform, rather long and slender, black towards the tips; scape tawny. Thorax pubescent; scutellum unarmed; metathorax roughly scabrous. Petiole black, less than half the length of the hind coxæ. Abdomen black, lanceolate, slightly compressed, longer and narrower than the thorax, tawny towards the tip. Posterior femora black towards the base; hind femora much incrassated, with many very minute teeth, and with one large tooth near the base; hind tibiæ with black tips; hind tarsi black towards the base. Wings cinereous; veins piceous. Fore wings with a tawny tinge along the costa; ulna about half the length of the humerus; radius longer than the ulna; cubitus short. Length of the body 5 lines; of the wings 8 lines.

Ega. Discovered by Mr. Bates. In the British Museum.

SMIERA ERYTHRINA. *Fem.* Rufa, glabra, nitens; caput et thorax subpunctata; caput antice flavescens; antennæ nigrae, filiformes, breviusculæ, scapo rufo; thorax linea transversa vittaque tenui pectorisque disco nigris, scutello inermi; abdomen brevi-fusiforme, parvum, petiolo breviusculo, segmentis piceo fasciatis; coxæ posticæ nigro vittatæ; femora postica subdentata, intus nigro vittata; alæ cinereæ.

Female. Red, smooth, shining. Head and thorax minutely punctured. Head yellowish in front, with a black mark behind. Antennæ black, filiform, rather short; scape red. Prothorax short, with a black sutural line between it and the mesothorax; scutum of the latter with a black longitudinal line; scutellum unarmed; pectus mostly black. Petiole less than half the length of the hind coxæ. Abdomen short, fusiform, acuminate, slightly compressed, shorter, and much narrower than the thorax; segments with piceous bands on the foreborders. Hind coxæ with a black stripe on each side; hind femora much incrassated, with a black streak and a lower black stripe on the inner side, armed beneath with many minute teeth. Wings cinereous; veins black; ulna about half the length of the humerus; radius a little longer than the ulna; cubitus short, clouded with black. Length of the body 3½ lines; of the wings 6 lines.

Orizaba, Mexico. Discovered by M. Sallé. In the British Museum.

SMIERA MELANOPTERA. *Mas.* Lutea, glabra, nitens; caput et thorax subpunctata; caput nigrum; antennæ nigrae, filiformes, scapo luteo; scutum disco punctisque duobus nigris; scutellum bidentatum, gutta basali nigra; petiolus longissimus; abdomen longi-ovatum, dimidio apicali supra nigro; coxæ posticæ apice nigro strigatæ; femora postica subdentata, basi subtus nigro notata; alæ nigrae, apices versus cinereæ.

Male. Luteous, smooth, shining. Head and thorax minutely punctured. Head black. Antennæ black, filiform; scape luteous. Scutum with a black disk, and with a black point on the hind border of each of the parapsides; scutellum with a black dot on the base, and with two minute teeth. Abdomen elongate, oval, hardly longer than the very long petiole; apical half black above. Hind coxæ very long, with a black apical streak on the outer side; hind femora much incrassated, minutely dentate, with a black mark near the base beneath. Wings black, cinereous towards the tips and along most of the hind border; veins black; ulna a little more than half the length of the humerus; radius a little shorter than the ulna; cubitus very short. Length of the body $3\frac{1}{2}$ lines; of the wings 6 lines.

Venezuela. Discovered by Mr. Dyson. In the British Museum.

SMIERA DISCOLOR. *Fem.* Nigra, glabra, nitens; caput et thorax subpunctata; antennæ filiformes, sat robustæ; prothorax postice flavo marginatus; mesothorax flavo quadrinotatus, scutello inermi, metathorace scabro; abdomen longi-ovatum, basi sordide flavescens, petiolo brevissimo; pedes albido-flavi, femoribus posticis nigris subdentatis flavo fasciatis, tibiis posticis nigris; alæ cinereæ, subluridescentes.

Female. Black, smooth, shining. Head and thorax minutely punctured. Antennæ filiform, rather stout. Prothorax with a yellow band on its hind border. Scutum with two yellow streaks along the sutures of the parapsides; scutellum unarmed, with two yellow oblique oblong spots which are almost connected hindward; metathorax largely scabrous, with a yellowish spot on each side. Abdomen elongate-oval, narrower and a little shorter than the thorax, dingy yellowish towards the base; petiole very short. Legs whitish-yellow; hind femora black, much incrassated, very minutely dentate beneath, with a broad irregular yellow band towards the tips; hind tibiæ black. Wings cinereous, with a slight lurid tinge; veins black; ulna less than half the length of the humerus; radius a little longer than the ulna; cubitus short. Length of the body 3 lines; of the wings 6 lines.

St. Paulo. Discovered by Mr. Bates. In the British Museum.

SMIERA NEBULOSA. *Fem.* Fulva, glabra, nitens; caput et thorax subpunctata; antennæ piceæ, filiformes, apice fulvæ; scutellum inerme; metathorax flavescens; abdomen ovatum, acuminatum, subcompressum, petiolo longo flavescente; femora postica subdentata; alæ longiusculæ; anticæ cinereæ, margine exteriori subnigricante, vitta costali nigricante; posticæ subnigricantes, vitta discali cinerea.

Female. Tawny, smooth, shining. Head and thorax very minutely

punctured. Antennæ piceous, filiform, tawny at the tips. Scutellum unarmed. Metathorax pale yellowish, smooth, shining. Abdomen oval, acuminate, slightly compressed; petiole pale yellowish, a little more than half the length of the abdomen. Hind coxæ very long; hind femora incrassated, armed with many very minute teeth. Wings rather long; veins black; fore wings cinereous, with a blackish costal stripe which widens from the base to the cubitus, where it occupies half the breadth of the wing and there terminates; tips and hind border less blackish; ulna more than half the length of the humerus, a little longer than the radius; cubitus rather long for this family. Hind wings blackish, excepting the base and a discal stripe. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

Eggs. Discovered by Mr. Bates. In the British Museum.

SMIERA TENEBROSA. *Mas.* Nigra, glabra, nitens; caput et thorax subpunctata; oculi flavo cincti; antennæ breves, robustæ, filiformes; thorax flavo quadrimaculatus, scutello inermi, metathorace scabro; abdomen parvum, gibbosum, petiolo brevissimo; pedes flavi, coxis posticis nigris, femoribus posticis subdentatis nigro notatis, tibiis posticis basi apiceque nigris; alæ nigricantes.

Male. Black, smooth, shining. Head and thorax minutely punctured. Eyes with yellow orbits, which are broadest on the face, and interrupted on each side of the vertex. Antennæ short, stout, compact, filiform. Thorax with a yellow spot on each side in front, and with another on each side of the scutellum, which is unarmed; metathorax roughly scabrous. Abdomen very small, gibbous, slightly compressed, less than half the length and not more than half the breadth of the thorax; petiole very short. Legs yellow; hind coxæ black, very long; hind femora much incrassated, armed beneath with many very minute teeth, with an angular black band which traverses the disk on each side and is connected on the inner side with an apical black spot; hind tibiæ black at the base and at the tips. Wings blackish, paler at the base and along the hind border; veins black. Fore wings with the ulna not more than one-fourth of the length of the humerus; radius as long as the ulna; cubitus short. Length of the body $2\frac{1}{2}$ lines; of the wings 6 lines.

Orizaba, Mexico. Discovered by M. Sallé. In the British Museum.

SMIERA LEUCOTELUS. *Fem.* Nigra, glabra, nitens; caput et thorax scite punctata; caput brevissimum; antennæ piceæ, filiformes, sat graciles; thorax brevis, fascia interrupta fulvescente, scutello inermi, metathorace scabro; abdomen ellipticum, stylo apicali filiformi longissimo, petiolo brevissimo; coxæ posticæ flavo bimaculatæ; femora postica dentata; alæ cinereæ, longæ.

Female. Black, smooth, shining. Head and thorax minutely punctured. Head very short. Antennæ piceous, filiform, rather slender, not longer than the thorax. Thorax short; scutum with an interrupted dull-tawny band on the hind border; scutellum unarmed:

metathorax roughly scabrous. Abdomen elliptical, terminating in a slender filiform compressed acute style which is as long as the preceding part, the latter not being longer than the thorax; petiole extremely short. Hind coxæ very long, with a yellow spot on each side; hind femora much incrassated, armed beneath with one large and several minute teeth. Wings cinereous, rather long; veins piceous; ulna about half the length of the humerus; radius longer than the ulna; cubitus less than one-fourth of the length of the ulna, but emitting a branch at its tip. Length of the body 4 lines; of the wings 8 lines.

Eggs. Discovered by Mr. Bates. In the British Museum.

SMIERA CHRYSOMERUS. *Fem.* Nigra, nitens; antennæ subclavatæ, apice lanceolatæ, thorace paulo longiores, scapo subtus pallido; thorax punctatus, luteo sex-maculatus, scutello bispinoso; abdomen ovatum, subcompressum, apice acuminatum, petiolo longo; femora postica flava, basi nigra, subtus dentata; alæ cinereæ, venis ochraceis.

Female. Black, smooth, shining, slightly pubescent. Antennæ a little longer than the thorax; scape pale beneath; flagellum slightly thickening from the base outward, lanceolate towards the tip. Thorax roughly punctured, with a luteous spot on each humerus, and one by the base of each fore wing, and two on the hind border of the scutum; scutellum with two short spines. Abdomen oval, slightly compressed, acuminated towards the tip, narrower than the thorax; petiole full half the length of the hind coxæ. Hind femora yellow, very much incrassated, black towards the base, armed with several large teeth. Wings cinereous; veins ochraceous; humerus nearly twice the length of the ulna; radius not longer than the ulna; cubitus fully one-third of the length of the ulna. Length of the body $3\frac{1}{2}$ lines; of the wings $5\frac{1}{2}$ lines.

St. Paulo. Discovered by Mr. Bates. In the British Museum.

SMIERA TRANSVERSA. *Mas.* Nigra, glabra; antennæ filiformes, thorace non longiores, subtus ferrugineæ, scapo subtus flavescente; thorax scaber, scutello bispinoso; abdomen ovatum, flavo bifasciatum, petiolo longo; coxæ posticæ flavo vittatæ; femora postica flavo bistrigata; alæ cinereæ.

Fem. Petiolus brevior; abdomen longi-ovatum.

Male. Black, smooth, shining, pubescent. Antennæ filiform, as long as the thorax, ferruginous beneath; scape yellowish beneath. Thorax roughly scabrous or punctured; scutellum with two short obtuse spines. Abdomen oval, shorter and narrower than the thorax, with short slender yellow bands; petiole cylindrical, about half the length of the hind coxæ, which are striped with yellow. Hind femora much incrassated, with a broad yellow streak on each side. Wings cinereous; veins piceous; humerus much more than twice the length of the ulna; radius a little longer than the ulna; cubitus less than one-third of the length of the ulna; spurious veins distinct.

Female. Petiole shorter than that of the male. Abdomen elongate-oval. Length of the body 3 lines; of the wings 5 lines.

Ega; Tapayos. Discovered by Mr. Bates. In the British Museum.

CHALCIS COMPACTA. *Mas.* Nigra, brevis, crassa, glabra, nitens; caput et thorax rude punctata; antennæ breves, robustæ; thorax flavo quadripunctatus; scutellum bidentatum; metathorax scaber; petiolus brevissimus; abdomen brevi-ellipticum, gibbosum, lateribus apicem versus cinereo-pubescentibus; pedes flavi, coxis femoribusque nigris, his apice flavis, tibiis anterioribus nigro strigatis, tibiis posticis basi intusque nigris; alæ obscure cinereæ.

Male. Black, short, thick, smooth, shining. Head and thorax roughly punctured. Antennæ short, stout. Thorax with a yellow callus at the base of each fore wing, and with a yellow dot on each of the paraptera; scutellum bidentate; metathorax largely scabrous. Petiole extremely short. Abdomen short, elliptical, somewhat gibbous, much shorter and narrower than the thorax, with cinereous down on each side towards the tip. Legs yellow; coxæ and femora black, the latter with yellow tips; hind femora much incrassated, with many very minute teeth; anterior tibiæ with a black streak on each side; hind tibiæ black at the base and on the inner side. Wings dark cinereous; veins black; ulna less than half the length of the humerus; radius hardly one-third of the length of the ulna; cubitus very short. Length of the body 3 lines; of the wings 7 lines.

Orizaba, Mexico. Discovered by M. Sallé. In the British Museum.

CHALCIS VICARIA. *Mas.* Nigra, glabra, nitens; caput et thorax rude punctata; antennæ filiformes; thorax callis duobus lateralibus flavis; scutellum inerme, apice cinereo-pubescentibus; petiolus brevissimus; abdomen longi-ovatum, apicem versus utrinque cinereo-tomentosum; pedes flavi, coxis femoribusque nigris, his apice flavis, tibiis subtus nigris; alæ cinereæ.

Male. Black, smooth, shining. Head and thorax roughly punctured. Head deeply excavated in front for the reception of the scape of the filiform antennæ. Thorax with a yellow callus at the base of each fore wing; scutellum unarmed, with cinereous down at the tip. Petiole extremely short. Abdomen elongate-oval, with cinereous down on each side towards the tip, a little narrower but not longer than the thorax. Legs yellow; coxæ and femora black, the latter with yellow tips; hind femora much incrassated, with many very minute teeth; tibiæ mostly black beneath. Wings cinereous; veins black; ulna about half the length of the humerus; radius less than half the length of the ulna; cubitus very short. Length of the body $3\frac{1}{2}$ lines; of the wings 7 lines.

Ega. Discovered by Mr. Bates. In the British Museum.

CHALCIS STYLATA. *Fem.* Nigra, glabra, nitens; caput et thorax scabra; caput breve, postice argenteo-pubescentibus, facie perobliqua; antennæ

filiformes, scapo subtus rufescente; scutellum bidentatum; abdomen ovatum, lineis tribus lateralibus argenteo-pubescentibus, apicem versus stylatum compressum, petiolo brevissimo; tarsi rufi; femora postica dentata; alæ cinereæ.

Female. Black, smooth, shining. Head and thorax scabrous. Head short, with shining slightly silvery pubescence behind; face very oblique. Antennæ filiform, stout, as long as the thorax; scape reddish beneath. Scutellum armed with two short teeth. Abdomen much longer than the thorax, ovate, except the apical third part, which is stylate, compressed, truncate at the tip; three lateral transverse lines of silvery pubescence; petiole very short. Tarsi red; hind coxæ very long; hind femora much incrassated, armed beneath with several small teeth. Wings cinereous; veins black. Fore wings with the cubitus and the tip of the humerus clouded with black; ulna stout, about half the length of the humerus; radius and cubitus equal in length, not more than one-fourth of the length of the ulna. Length of the body 5 lines; of the wings 7 lines.

Eggs. Discovered by Mr. Bates. In the British Museum.

CHALCIS ACULEATA. *Fam.* Nigra, glabra, nitens; caput et thorax rude punctata; antennæ subclavatæ; thorax callis duobus flavis, scutello inermi; abdomen cinereo-pubescent, dimidio apicali compresso lanceolato; femora apice, tibiæ tarsi que flava; femora postica dentata; tibiæ intermediæ subtus nigro uninotatæ, posticæ subtus nigre; alæ cinereæ, breviusculæ.

Female. Black, smooth, shining. Head and thorax largely punctured. Antennæ subclavate, conical at the tips, shorter than the thorax. Thorax with a yellow callus at the base of each fore wing; scutellum unarmed. Abdomen with cinereous pubescence except towards the base, extending much beyond the fore wings, very much longer than the thorax; apical half compressed, attenuated and lanceolate. Tibiæ, tarsi, and tips of femora yellow; middle tibiæ with a black mark beneath; hind femora much incrassated, with several small teeth beneath; hind tibiæ black beneath. Wings cinereous, rather short; veins black; ulna full half the length of the humerus, longer than the radius; cubitus not more than one-sixth of the length of the ulna. Length of the body 4 lines; of the wings 5 lines.

Santarem. Discovered by Mr. Bates. In the British Museum.

HALTICHELLA ERYTHROTELUS. *Fam.* Nigra, glabra, nitens; caput antice scabrum; antennæ filiformes, apices versus rufæ; thorax rude punctatus, scutello bispinoso; abdomen dimidio apicali rufo lanceolato, petiolo brevi; femora anteriora intus apices versus rufescentia, postica dentata; alæ cinereæ, basi nigricantes.

Female. Black, smooth, shining, slightly pubescent. Head flat and scabrous in front. Antennæ filiform, a little longer than the thorax, red for more than one-third of the length from the tips. Thorax roughly punctured; scutellum with two short spines. Abdomen not

extending beyond the fore wings; apical half red, attenuated and lanceolate, pilose beneath; petiole short. Anterior femora reddish on the inner side towards the tips; hind femora much incrassated, armed beneath with several small teeth. Wings cinereous, blackish towards the base. Fore wings lurid about the middle part of the costa; humerus about twice the length of the ulna; radius and cubitus about equal in length, not more than one-fourth of the length of the ulna. Length of the body 4 lines; of the wings 6 lines.

Eggs. Discovered by Mr. Bates. In the British Museum.

HALTICHELLA DORSALIS. *Fem.* Rufa, glabra, nitens; caput et thorax punctata; caput, metathorax et pectus nigra; antennæ nigrae, longiusculæ, subfiliformes; petiolus brevissimus; abdomen lanceolatum, apice nigrum; pedes nigri, genubus albis, tibiis apice tarsisque rufescentibus; alæ cinereæ.

Female. Red, smooth, shining. Head and thorax thickly punctured. Head black, a little broader than the thorax. Antennæ black, rather long, hardly thicker towards the tips. Metathorax and pectus black. Petiole very short. Abdomen lanceolate, a little longer and narrower than the thorax, black towards the tip. Legs black; knees white; hind femora incrassated, minutely dentate; tarsi and tips of the tibiæ reddish. Wings cinereous; veins black; ulna less than half the length of the humerus; radius and cubitus very short. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

Santarem. Discovered by Mr. Bates. In the British Museum.

XV.—*Réflexions et Notes synonymiques sur le Travail de M. JAMES THOMSON sur les Cérámbycides**, avec descriptions de quelques nouvelles espèces. Par A. CHEVROLAT.

Pour un travail tel que l'indique M. J. Thomson, il était nécessaire que l'auteur eut préalablement reconnu ou fit déterminer les espèces de sa collection, c'est ce qu'il n'a pas fait complètement, comme on le verra ci-après.

Ces recherches, en effet, prennent un temps infini; il faut en outre une certaine habitude, une certaine sagacité dans l'appréciation des termes dont quelques auteurs se sont servis pour décrire la forme des espèces, les couleurs, les ponctuations variées, etc.

Depuis plus de vingt ans que j'étudie plus particulièrement cette famille, je réunis des matériaux, afin d'éditer un catalogue des espèces décrites, quand la classification sera établie d'une manière à peu près définitive; bien que je reconnaisse chaque jour quelques unes de ces espèces, je suis loin de croire avoir déterminé toutes celles

* "Essai d'une classification de la famille des Cérámbycides, et matériaux pour servir à une monographie de cette famille. Pars prima, Sur les *Lamiitæ*." Par M. James Thomson. Paris, 1860.